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20050139060 Research and Technology Organization, Neuilly-sur-Seine, France

Handbook on the Analysis of Smaller-Scale Contingency Operations in Long Term Defence Planning

February 2005; 170 pp.; In English; Original contains color illustrations

Report No.(s): RTO-TR-SAS-027; AC/323(SAS-027)TP/39; Copyright; Avail: CASI; [C01](#), CD-ROM; [A08](#), Hardcopy

The post Cold War era has witnessed a proliferation of peace support operations, humanitarian operations, and a variety of other smaller-scale contingency operations. These have challenged NATO and others with their frequency, complexity, interactability, and cost. Such operations are likely to remain a major task for the alliance and the international community for the next decade. The SAS-027 technical team was established by the NATO RTB under the SAS Panel in March 2000 to review current NATO and national planning experiences to devise a comprehensive approach that integrates those experiences in face of new planning challenges. The SAS-027 technical team had an evolving membership with participation from Australia, Canada, France, Georgia, NC3A, the Netherlands, Norway, Sweden, Turkey, UK, and USA. This document provides an overview of the current 'state of the art' in the analysis of smaller-scale contingencies. It is intended as a guide to operational analysts tasked with conducting such analysis in support of long term planning, whether force structure planning, analysis in support of equipment acquisition or other analysis of other issues such as the organisation of forces. The work has drawn heavily from the work done by the SAS-025 technical team on Analysis to Support Overall Long-Term Defence Planning.

Author

International Relations; Planning; Contingency; Politics; Handbooks

20050160924 Research and Technology Organization, Neuilly-sur-Seine, France

Radar Polarimetry and Interferometry

February 2005; 326 pp.; In English; Sensors and Electronics Technology Panel (SET), 14-15 Oct. 2004, Brussels, Belgium; See also 20050160925 - 20050160934; Original contains color and black and white illustrations

Report No.(s): RTO-EN-SET-081; AC/323(SET-081)TP/47; Copyright; Avail: CASI; [C01](#), CD-ROM; [A15](#), Hardcopy

Scientists and engineers already engaged in the fields of radar surveillance, reconnaissance and scattering measurements, for instance, generally gain their specialist knowledge in both polarimetry and interferometry by working through scientific papers and specialized literature available on the subject. Usually, this is a time consuming exercise, as it is difficult to collate respective material tailored to newcomers. This Lecture Series is an attempt to redress this problem. The aim of this Lecture Series was to provide a substantial and balanced introduction to the basic theory, scattering concepts, systems and applications typical to polarimetric and interferometric radar reconnaissance and surveillance and to introduce the cutting-edge technologies, new ideas and methodologies. Topics covered were: basics, advanced concepts and applications of both radar polarimetry and SAR interferometry and the combination of both techniques as well with respect to cross track and along track, single and dual pass configurations; the interconnection between interferometry measurement errors and SAR system accuracy with respect to both platform flight path geometry

and attitude, and principal radar system accuracies; polarimetric SAR processing and image analysis and the most important decomposition theorems; polarimetric interferometry and differential interferometry and the respective SAR image analysis, processing principles and calibration problems; and applications especially with respect to Digital Elevation Models and target classification; realized and future airborne and spaceborne systems as Examples (E-SAR, SIR-C/X-SAR, SRTM, ERS-1/2, RadarSAT, ENVISAT/ASAR, CARTWHEEL) together with a concluding outlook in the future development airborne and space borne polarimetric SAR with interferometry capability.

Author

Interferometry; Polarimetry; Synthetic Aperture Radar

20050162142 Research and Technology Organization, Neuilly-sur-Seine, France

Combat Casualty Care in Ground-Based Tactical Situations: Trauma Technology and Emergency Medical Procedures

September 2004; 854 pp.; In English; In French; Combat Casualty Care in Ground-Based Tactical Situations: Trauma Technology and Emergency Medical Procedures, 16-18 Aug. 2004, Saint Pete Beach, FL, USA; See also 20050162143 - 20050162212; Original contains color and black and white illustrations

Report No.(s): RTO-MP-HFM-109; Copyright; Avail: CASI; [C01](#), CD-ROM; [A99](#), Hardcopy

In ground based tactical situations casualties can not be avoided. It is well documented that immediate haemostatic surgery can be life saving, and the most significant factor for survival is the time from injury to surgery. Late complications like septicemia and multi organ failure are in most cases sequelae of the initial hypo perfusion. In situations where evacuation will be delayed, the prehospital handling and management are of critical importance. In recent tactical situations with long distances to hospital, forward surgical teams have been deployed to reduce the time to surgery. Fast and correct decisions in questions of triage, evaluation and initial treatment are life saving and may reduce complications for the individual soldier. New technologies allow rapid location of casualties and advanced diagnostic aid and decision support in the field. The application of sensors to monitor vital signs and computers with embedded knowledge provide such support. Recent technology advances allow for non-invasive and remote monitoring of physiologic parameters and vital signs, thereby increasing the possibility for accurate treatment and management by ground personnel.

Derived from text

Combat; Casualties; Emergencies; Injuries; Surgery; Survival

20050167066 Research and Technology Organization, Neuilly-sur-Seine, France

RTO Technical Publications: A Quarterly Listing

April 2005; 2 pp.; In English

Report No.(s): RTO-05-01; No Copyright; Avail: CASI; [A01](#), Hardcopy

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Bibliographies; Military Technology; North Atlantic Treaty Organization (NATO); Armed Forces (Foreign)